

ANNUAL COMPLIANCE REPORT OF MISSOURI PUBLIC WATER SYSTEMS



MISSOURI
DEPARTMENT OF
NATURAL RESOURCES

2018

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Summary

In Missouri, the Public Drinking Water Branch of the Missouri Department of Natural Resources is responsible for implementing the Safe Drinking Water Act to assist the state's 2,749 public water systems in providing safe drinking water. The Department establishes regulatory limits and monitors for 91 different chemical and microbiological contaminants in public water supplies. This report provides information on how well Missouri's public water systems are meeting these standards.

This report is the 23rd Annual Compliance Report produced by the Department. It contains compliance statistics for Missouri's public water systems for calendar year 2018. The report shows that 98.9 percent of Missouri's population in 2018 that was served by a community public water system received water that met all health-based standards.

The Department prepares this report annually to comply with statutory obligations of the federal Safe Drinking Water Act, and to provide the public with a better understanding of the importance of safe and abundant drinking water. The Department will provide this report to the U.S. Environmental Protection Agency, who will use the information to prepare a national report on the performance of the nation's public drinking water systems.

What is a Public Water System?

A public water system provides drinking water through piping or other constructed conveyances for human consumption to at least 15 service connections, or serves an average of at least 25 people for at least 60 days each year.

There are three types of public water systems:

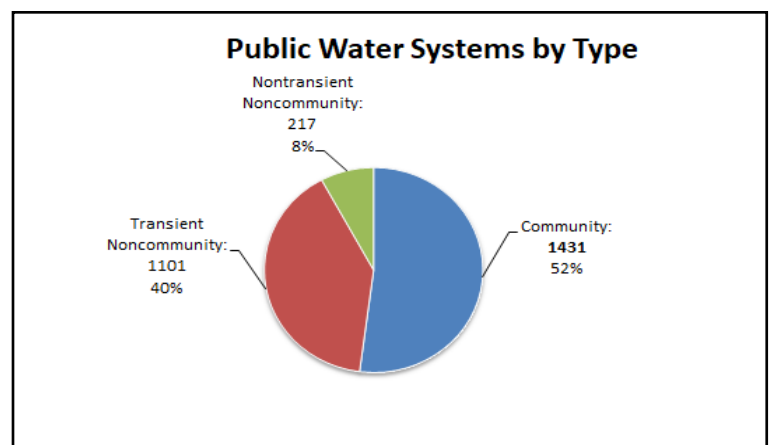
1. **Community systems** include towns, water districts, subdivisions, mobile home parks and residential facilities, such as nursing homes or prisons.
2. **Nontransient noncommunity systems** regularly serve the same 25 people at least six months per year. Examples include schools and factories.
3. **Transient noncommunity systems** serve at least 25 people per day, at least 60 days of the year. Examples include restaurants, resorts and campgrounds. These smaller systems are typically located in rural areas where it is not feasible to connect to a city or water district.

Requirements for construction, operation, monitoring, etc., vary among systems based on their type, population and source of water. Water testing at systems that are not public water systems (e.g., homes served by private wells) is facilitated by local and county health agencies and the Missouri Department of Health and Senior Services, rather than the Missouri Department of Natural Resources.

The Missouri Public Water System Universe

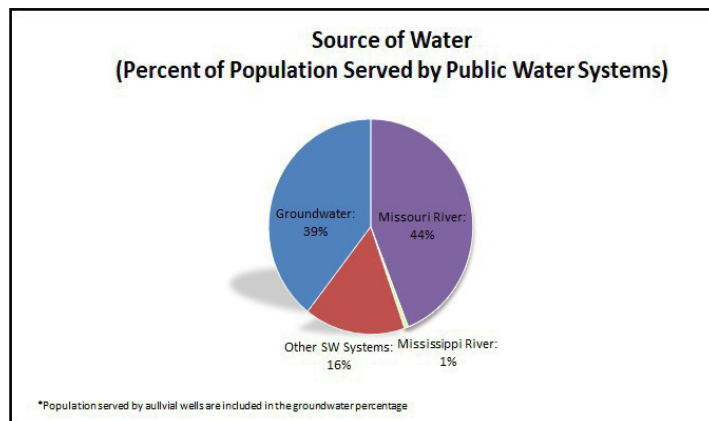
In 2018, there were 2,749 active public water systems in Missouri. Of this total, 1,431 were community, 217 were nontransient noncommunity, and 1,101 were transient noncommunity systems.

In 2018, Missouri's community water systems served more than 5 million residents. The Missouri River is by far the largest source of drinking water for Missourians. The river's abundant supply of water and its proximity to the state's major population centers make it a valuable resource to the communities that draw from it.



Groundwater is the next most common source of drinking water for community water supplies. In southern Missouri, high-quality groundwater is easy to obtain and typically requires very little treatment to be used for drinking water. Approximately 39 percent of Missourians are served by a public system utilizing groundwater as its source.

All other public water customers receive their water from community systems that draw from other types of surface water sources. Particularly prevalent in the northern part of Missouri, these include rivers and reservoirs that provide raw water to the water systems.



Analysis of Compliance

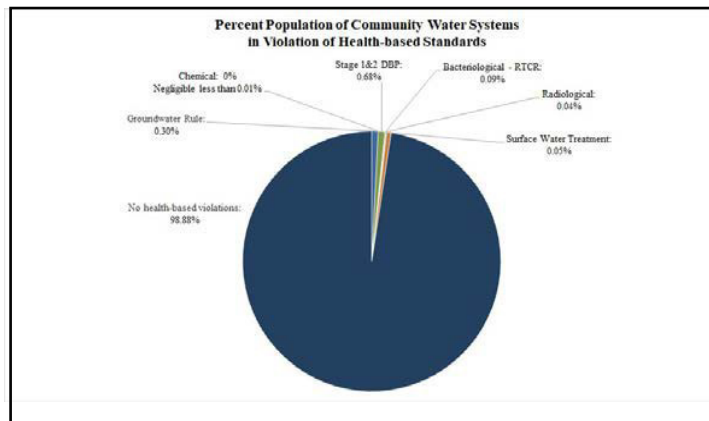
Missouri requires testing for 91 different regulated chemicals and microbiological contaminants on a regular schedule. The Summary of Violations Table in this report counts individual violations by contaminant type. These counts may include multiple violations for the same system, depending on the monitoring schedule for the particular contaminant.

Appendices A and B list specific systems by county that have had violations of different drinking water rules. These rules include the Revised Total Coliform Rule, Radionuclide Rule, Stage 2 Disinfectants and Disinfection Byproduct Rule and the Surface Water Treatment Rule.

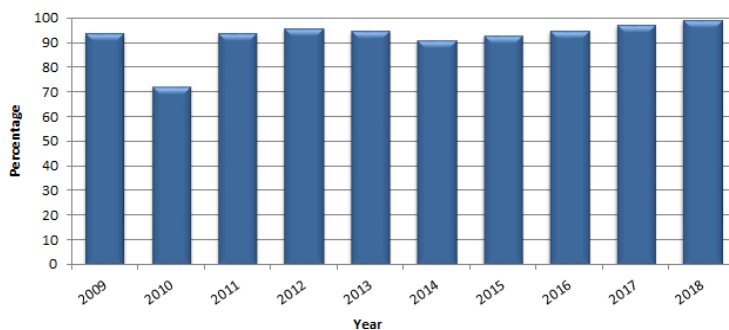
Maximum Contaminant Level (MCL) and treatment technique violations represent the most significant impact on public health. In 2018, 98.9 percent of Missouri public water supply customers had water that met all MCL and treatment technique requirements. The Drinking Water Trends Community Systems Chart shows the ten-year trend for this measure.

The above measure takes into account any MCL violation or treatment technique violation that occurs at a system at any time throughout the year with no consideration being given to the length of time that the violation occurred. To better reflect the duration of violations, EPA and the states developed an additional compliance measure called "person-months" which represents the population served by community water systems that meet health-based standards on a monthly basis. Missouri achieved 99.4 percent compliance with this measure in 2018.

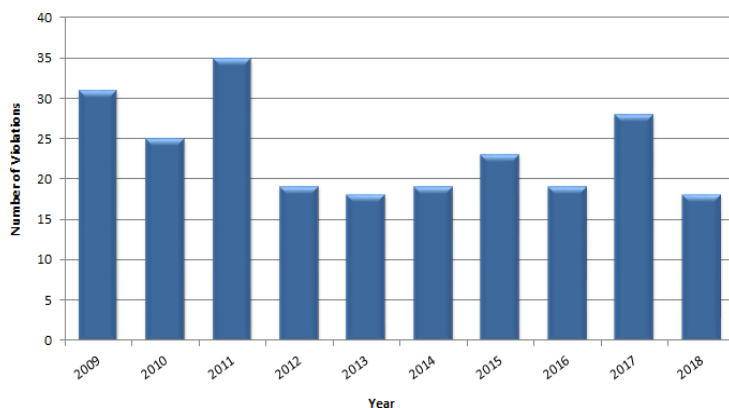
Many of the MCL and treatment technique violations reference chronic contaminants, which can cause health effects from continuous, long-term exposure. Other MCLs are based on acute (short-term) health effects. In 2018, 18 public water systems, equal to 0.65 percent of all Missouri systems, had acute violations. These violations were all related to the detection of *E. coli*.



**Drinking Water Trends Community Systems:
Population Served Meeting All Health-based Requirements**



***E. coli* Acute MCL Violations**



How to Find More Information on Your Water System

Community water systems must distribute Consumer Confidence Reports annually to water customers. These reports provide detailed information about sources and levels of contaminants in the drinking water and must list all violations of state and federal requirements for the calendar year. In 2018, 99.4 percent of Missouri's community water systems distributed their Consumer Confidence Reports properly. You may obtain a copy of the Consumer Confidence Report for your public water system by contacting your service provider or the Department's Consumer Confidence Report website at dnr.mo.gov/ccr/index.html. The Department also maintains the Drinking Water Watch website at dnr.mo.gov/DWW/, which provides additional information on all of Missouri's public drinking water systems, including information on inventories, sample results, compliance activities and water quality.

For More Information

Information about Missouri's public water systems can be obtained by writing to the Missouri Department of Natural Resources, Water Protection Program, Public Drinking Water Branch, P.O. Box 176, Jefferson City, MO 65102-0176 or calling 800-361-4827 or 573-751-0124.

Information is also available on the Department's website at dnr.mo.gov/env/wpp/dw-index.html.



Explanation of Terms in Violations Tables

The following descriptions apply to the violations tables.

Filtered Systems: Water systems that have installed filtration treatment [10 CSR 60-4.050].

Ground Water Rule: A rule that requires monitoring of groundwater sources for E. coli contamination. It relies on four strategies to address this risk: periodic sanitary surveys, triggered source water monitoring in the case of a positive sample, corrective action for a system found to have a significant deficiency or source water E. coli contamination, and compliance monitoring to ensure the treatment technology is reliable.

Inorganic Contaminants: Non-carbon-based compounds such as metals, fluoride and nitrates. These contaminants are naturally-occurring in some water, but can also enter water through human activities [10 CSR 60-4.030]

Lead and Copper Rule: Lead and copper corrosion poses various health risks when ingested at any level, and can enter drinking water from household pipes and plumbing fixtures [10 CSR 60, Chapter 15]. Violations are reported for: failure to monitor, failure to install optimal corrosion control treatment or a source water treatment system that would reduce lead and copper levels in water at the tap, failure to replace lead service lines on the schedule required by the regulation and failure to provide required public education about reducing or avoiding lead intake from drinking water.

Maximum Contaminant Level (MCL): The highest amount of a contaminant allowed in drinking water. MCLs ensure drinking water does not pose a health risk and are defined in milligrams per liter (parts per million) unless otherwise specified.

Monitoring: The Department specifies which water testing methods the water systems must use and sets schedules for the frequency of testing. A water system that does not follow the Department's schedule or methodology is in violation [10 CSR 60-4.010]. States must report monitoring violations that are significant as determined by the EPA Administrator, in consultation with the Department. For this report, significant monitoring violations are major violations and they occur when no samples are taken or no results are reported during a compliance period.

Organic Contaminants: Carbon-based compounds, such as industrial solvents and pesticides. These contaminants generally enter water through runoff from cropland or discharge from factories [10CSR 60-4.040 and 4.100].

Radionuclides: Radioactive particles can occur naturally in water or result from human activity. Safe drinking water regulations set MCLs on five types of radionuclides: radium-226, radium-228, uranium, gross alpha and beta particle/photon radioactivity [10 CSR 60-4.060].

Surface Water Treatment Rule: This includes a series of rules promulgated from 1989-2009 that establish criteria under which water systems supplied by surface water sources, or groundwater sources under the direct influence of surface water, must filter and disinfect their water (Surface Water Treatment Rule, Interim Enhanced Surface Water Treatment Rule, Long Term 1 Enhanced Surface Water Treatment Rule, Long Term 2 Enhanced Surface Water Treatment Rule) [10 CSR 60-4.050 and 60-4.052].

Treatment Techniques: For some regulations, the EPA established treatment techniques in lieu of an MCL to control unacceptable levels of certain contaminants to reduce risk to public health. For example, treatment techniques have been established for viruses, bacteria, turbidity, and failure to correct a significant deficiency.

Violation: A failure to meet any state or federal drinking water regulation.

Organic Contaminants: Jan. 1, 2018 - Dec. 31, 2018

		MCL		Treatment Technique		Significant Monitoring/Reporting	
	MCL (mg/L)	No. of Violations	No. of Systems with Violations	No. of Violations	No. of Systems with Violations	No. of Violations	No. of Systems with Violations
Organic Contaminants				*			
1,1,1-Trichloroethane	0.2	0	0			0	0
1,1,2-Trichloroethane	0.005	0	0			0	0
1,1-Dichloroethylene	0.007	0	0			0	0
1,2,4-Trichlorobenzene	0.07	0	0			0	0
1,2-DBCP	0.0002	0	0			0	0
1,2-Dichloroethane	0.005	0	0			0	0
1,2-Dichloropropane	0.005	0	0			0	0
2,3,7,8-TCDD (Dioxin)	3x10 ⁻⁸	0	0			0	0
2,4,5-TP	0.05	0	0			0	0
2,4-D	0.07	0	0			0	0
Acrylamide				0	0		
Alachlor	0.002	0	0			0	0
Aldicarb	0.003	0	0			0	0
Aldicarb Sulfone	0.002	0	0			0	0
Aldicarb Sufoxide	0.004	0	0			0	0
Atrazine	0.003	0	0			0	0
Benzene	0.005	0	0			0	0
Benzo[a]pyrene	0.0002	0	0			0	0
BHC Gamma	0.0002	0	0			0	0
Carbofuran	0.04	0	0			0	0
Carbon tetrachloride	0.005	0	0			0	0
Chlorobenzene	0.1	0	0			0	0
Chlordane	0.002	0	0			0	0
cis-1,2-Dichloroethylene	0.07	0	0			0	0
Dalapon	0.2	0	0			0	0
Di(2-ethylhexyl)adipate	0.4	0	0			0	0
Di(2-ethylhexyl)phthalate	0.006	0	0			0	0
Dichloromethane	0.005	0	0			0	0
Dinoseb	0.007	0	0			0	0
Diquat	0.02	0	0			0	0
Endothall	0.1	0	0			0	0
Endrin	0.002	0	0			0	0
Epichlorohydrin				0	0		
Ethylbenzene	0.7	0	0			0	0
Ethylene dibromide	0.00005	0	0			0	0
Glyphosate	0.7	0	0			0	0
Heptachlor	0.0004	0	0			0	0

Values are in milligrams per liter (mg/L), unless otherwise specified

*Shaded areas indicate a violation is not applicable in this category

Organic Contaminants: Jan. 1, 2018 - Dec. 31, 2018

		MCL		Treatment Technique		Significant Monitoring/Reporting	
	MCL (mg/L)	No. of Violations	No. of Systems with Violations	No. of Violations	No. of Systems with Violations	No. of Violations	No. of Systems with Violations
Heptachlor epoxide	0.0002	0	0			0	0
Hexachlorobenzene	0.05	0	0			0	0
Hexachlorobenzene	0.001	0	0			0	0
Hexachlorocyclopentadiene	0.05	0	0			0	0
Lasso	0.05	0	0			0	0
Lindane	0.0002	0	0			0	0
Methoxychlor	0.04	0	0			0	0
Monochlorobenzene	0.1	0	0			0	0
o-Dichlorobenzene	0.6	0	0			0	0
Oxamyl (Vydate)	0.2	0	0			0	0
Para-Dichlorobenzene	0.075	0	0			0	0
Pentachlorophenol	0.001	0	0			0	0
Picloram	0.5	0	0			0	0
Simazine	0.004	0	0			0	0
Styrene	0.1	0	0			0	0
Tetrachloroethylene	0.005	0	0			0	0
Toluene	1	0	0			0	0
Total PCB	0.0005	0	0			0	0
Toxaphene	0.003	0	0			0	0
Trans-1,2-Dichloroethylene	0.1	0	0			0	0
Trichloroethylene	0.005	0	0			0	0
Vinyl chloride	0.002	0	0			0	0
Xylenes (total)	10	0	0			0	0

Disinfection Byproducts Rule: Jan. 1, 2018 - Dec. 31, 2018

		MCL		Treatment Techniques		Significant Monitoring/Reporting	
	MCL	No. of Violations	No. of Systems with Violation	No. of Violations	No. of Systems with Violation	No. of Violations	No. of Systems with Violation
Total trihalomethanes	0.80	59	22			19	18
Haloacetic acids	0.60	0	0			19	18
Disinfection byproducts		59	22	0	0	20	19
Total Organic Compounds				2	2		
Insufficient or Non-certified Operator				0	0		

Inorganic Contaminants: Jan. 1, 2018 - Dec. 31, 2018

		MCL		Treatment Technique		Significant Monitoring/Reporting	
	MCL (mg/L)	No. of Violations	No. of Systems with Violations	No. of Violations	No. of Systems with Violations	No. of Violations	No. of Systems with Violations
Inorganic Contaminants							
Antimony	0.006	0	0	0	0	0	0
Arsenic	0.010	0	0	0	0	0	0
Asbestos	7 million fibers/L	0	0	0	0	0	0
Barium	2	0	0	0	0	0	0
Beryllium	0.004	0	0	0	0	0	0
Cadmium	0.005	0	0	0	0	0	0
Chromium	0.1	0	0	0	0	0	0
Cyanide (as free cyanide)	0.2	0	0	0	0	0	0
Fluoride	4.0	8	2	0	0	0	0
Mercury	0.002	0	0	0	0	0	0
Nitrate	10 (as nitrogen)	0	0	0	0	0	0
Nitrite	1 (as nitrogen)	0	0	0	0	0	0
Selenium	0.05	0	0	0	0	0	0
Thallium	0.002	0	0	0	0	0	0
Total nitrate and nitrite	10 (as nitrogen)	0	0	0	0	42	42

Radiological Contaminants: Jan. 1, 2018 - Dec. 31, 2018

		MCL		Treatment Technique		Significant Monitoring/Reporting	
	MCL (pCi/L)	No. of Violations	No. of Systems with Violations	No. of Violations	No. of Systems with Violations	No. of Violations	No. of Systems with Violations
Radiological Contaminants							
Gross Alpha	15pCi/L	16	4			5	4
Radium-226 and radium-228	5 pCi/L	17	5			5	4
Gross beta	4 mrem/yr	0	0			0	0
Subtotal		33	5			5	4

Microbiological Contaminants: Jan. 1, 2018 - Dec. 31, 2018

		MCL		Treatment Technique		Significant Monitoring/Reporting	
	MCL Presence/Absence	No. of Violations	No. of Systems with Violations	Number of Violations	No. of Systems with Violations	Number of Violations	No. of Systems with Violations
Revised Total Coliform Rule							
Acute MCL violation	Presence	18	18				
Level 1 Assessment Violation				21	21		
Level 2 Assessment Violation				0	0		
Treatment Technique, Other				2	2		
Major Routine						465	290
Minor Routine						40	36
Reporting/Notification						4	4
Subtotal		18	18	23	23	509	311

Some systems may have violations in multiple categories

Surface Water Treatment Rule: Jan. 1, 2018 - Dec. 31, 2018

		MCL		Treatment Technique		Significant Monitoring/Reporting	
	MCL	No. of Violations	No. of Systems with Violation	No. of Violations	No. of Systems with Violation	Number of Violations	No. of Systems with Violation
Surface Water Treatment							
Filtered systems							
Monitoring, routine/repeat						8	1
Treatment techniques				11	3		
Unfiltered systems							
Monitoring, routine/repeat							
Failure to filter							
Subtotal				11	3	8	1

Lead and Copper Rule: Jan. 1, 2018 - Dec. 31, 2018

		MCL		Treatment Technique		Significant Monitoring/Reporting	
	MCL	No. of Violations	No. of Systems with Violation	No. of Violations	No. of Systems with Violation	No. of Violations	No. of Systems with Violation
Lead and Copper Rule							
Initial lead and copper tap monitoring and reporting						0	0
Follow-up or routine lead and copper tap monitoring and reporting						8	8
Treatment installation							
Public education				1	1	6	5
Subtotal				1	1	14	13

Public Notification: Jan. 1, 2018 - Dec. 31, 2018

		MCL		Treatment Techniques		Significant Monitoring/Reporting	
	MCL	No. of Violations	No. of Systems with Violation	No. of Violations	No. of Systems with Violation	No. of Violations	No. of Systems with Violation
Public Notification						170	119
Consumer Confidence Reports ¹						8	8
Subtotal						178	125

¹ Violations for failure to produce and distribute the 2016 Consumer Confidence Report in 2017

Groundwater Rule: Jan. 1, 2018 - Dec. 31, 2018

		MCL		Treatment Technique		Significant Monitoring/Reporting	
	MCL	No. of Violations	No. of Systems with Violation	No. of Violations	No. of Systems with Violation	No. of Violations	No. of Systems with Violation
Groundwater Rule							
Failure to treat				10	6		
Failure to address contamination				0	0		
Failure to address deficiency				8	8		
Public Notice						0	0
Sanitary Survey						11	11
Major routine and follow up monitoring						110	69
Subtotal				18	14	121	80

Appendix A: Health Based Compliance

I. Revised Total Coliform Rule - Acute MCL Violations

The following systems were under boil water orders due to acute MCL violations for E. coli bacteria for the months indicated.

County	ID#	System Name	Month(s)	Issue	Rescind
BARRY	MO5233218	EAGLE ROCK MARINA	June	7/1/2018	7/16/2018
BARRY	MO5036300	OAKS HOMEOWNERS ASSN WATER DIST	July	7/19/2018	7/31/2018
BENTON	MO1212807	MARYS CATFISH AND MORE LLC	August	8/29/2018	9/18/2018
BENTON	MO1041483	OUR SLICE OF PARADISE	July	7/27/2018	8/17/2018
CAMDEN	MO5303170	SKYWATER ESTATES #1	July	7/23/2018	8/21/2018
CRAWFORD	MO6210144	MERAMEC VALLEY CAMP RESORT	June	6/16/2018	6/25/2018
DUNKLIN	MO4010379	HORNERSVILLE PWS	September	9/27/2018	10/5/2018
JEFFERSON	MO6010970	CEDAR HILL LAKES VILLAGE	December	12/23/2018	1/5/2019
MONTGOMERY	MO6251710	ROY L UTILITIES	September	9/25/2018	9/27/2018
PETTIS	MO3172256	AUNT MARTHAS PRESCHOOL & DAY CARE	May	6/4/2018	6/25/2018
PULASKI	MO3010684	RICHLAND PWS	June	6/15/2018	6/27/2018
PULASKI	MO4031631	RIDGE CREEK WATER COMPANY LLC	October	10/26/2018	10/31/2018
ST CHARLES	MO6061638	SUNSHINE HOME CARE	October	10/13/2018	3/23/2019
ST FRANCOIS	MO4210857	SHAMROCK REST & LOUNGE	June	6/24/2018	7/19/2018
STONE	MO5250537	ANGLERS BEND UNIT 2	February	3/13/2018	3/16/2018
STONE	MO5191312	CALM WATERS RESORT	May	5/31/2018	6/12/2018
STONE	MO5258070	STARRLITE VILLAGE 4TH ADDITION	February	3/13/2018	7/16/2018
WASHINGTON	MO4191055	YMCA TROUT LODGE & CAMP LAKEWOOD	March	3/30/2018	7/5/2018

Appendix A - Health Based Compliance

II. Revised Total Coliform Rule - Level 1 and Level 2 Assessment

Since the transition to the Revised Total Coliform Rule April 1, 2016, the following systems have exceeded the coliform treatment technique trigger - triggering an assessment on more than one occasion in 2018. These assessments are triggered for the following reasons: systems collecting forty (40) or more samples per month exceeding 5.0% total-coliform positive samples for the month, systems collecting fewer than forty (40) samples per month having two (2) or more coliform-positive samples for the month, failing to collect every required repeat sample after any coliform-positive sample, or incurring an E. coli MCL violation.

County	ID#	System Name	Assessments
BARRY	MO5202810	THE TIMBERS RESORT AND LODGE	2
BARRY	MO5213150	PAINTED BUFFALO CAFE	2
BARRY	MO5233218	EAGLE ROCK MARINA	3
BARRY	MO5283110	DOLLAR GENERAL #14995 EAGLE ROCK	2
BENTON	MO1041483	OUR SLICE OF PARADISE	2
BENTON	MO3010400	IONIA PWS	3
BENTON	MO3031366	THE MISSING WELL	2
BENTON	MO3112196	USACE TRUMAN VISITOR CENTER	2
CAMDEN	MO3031242	SERENITY BAY SUBD	2
CAMDEN	MO3242220	WINDERMERE BAPTIST CONFERENCE CENTER	2
CAMDEN	MO5252715	WINDWOOD SHORES	2
COLE	MO3024164	COLE COUNTY PWSD 5	3
CRAWFORD	MO6010200	CUBA PWS	2
GREENE	MO5036258	EASTBOUROUGH SUBD	2
GREENE	MO5036304	PEMBROOK VILLAGE SUBD	2
HICKORY	MO5010197	CROSS TIMBERS PWS	2
HICKORY	MO5252773	STARLIGHT LANE SUBDIVISION	2
JEFFERSON	MO6048142	CRYSTAL COVE MHP	2
JEFFERSON	MO6172825	OUR LADY QUEEN OF PEACE	2
JEFFERSON	MO6273211	HOUSE SPRINGS CHURCH OF CHRIST	2
LAWRENCE	MO5010341	HALLTOWN PWS	2
LINCOLN	MO6243174	SUNRISE RV PARK LLC	2
MILLER	MO3069010	MILLER COUNTY CARE CENTER	2
MILLER	MO3190813	PORT ARROWHEAD	2

MILLER	MO5213059	BENTLEYS RESTAURANT	2
MORGAN	MO3031358	MORGAN COUNTY PWSD # 2	3
MORGAN	MO5031589	SKYLINE SUBDIVISION	2
MORGAN	MO5193232	LAKESHORE CONDOS	2
MORGAN	MO5301457	MILLSTONE LUXURY CONDOMINIUMS	2
NEWTON	MO5048225	BIG VALLEY PARK MHP	2
PHELPS	MO3190089	THE JAMES FOUNDATION	3
PULASKI	MO3010684	RICHLAND PWS	3
PULASKI	MO3010720	ST ROBERT PWS	2
PULASKI	MO4031631	RIDGE CREEK WATER COMPANY LLC	10
REYNOLDS	MO4240141	VALLEY SPRINGS YOUTH RANCH	2
REYNOLDS	MO4240177	SHERWOOD FOREST CAMP	2
ST CHARLES	MO6232941	NORTH SHORE MARINA	2
ST CLAIR	MO5113233	USACE TRUMAN BERRY BEND SOUTH	2
ST CLAIR	MO5291358	COUNTRYSIDE TRADING POST	2
ST FRANCOIS	MO4010073	BISMARCK PWS	2
ST FRANCOIS	MO4172969	HARVEST CHRISTIAN CENTER	2
STONE	MO5191312	CALM WATERS RESORT	2
TEXAS	MO4010674	RAYMONDVILLE PWS	2
WARREN	MO6036189	CEDAR GROVE VILLAGE SUBD	2

Appendix A: Health Based Compliance

III. Chemical MCL Violations

County	ID#	System Name	Chemical
BARTON	MO5010446	LAMAR PWS	TOTAL TRIHALOMETHANE (TTHM)
CALDWELL	MO1024079	CALDWELL COUNTY PWSD 2	TOTAL TRIHALOMETHANE (TTHM)
CHARITON	MO2010420	KEYTESVILLE PWS	TOTAL TRIHALOMETHANE (TTHM)
CLAY	MO1010546	MOSBY PWS	TOTAL TRIHALOMETHANE (TTHM)
COOPER	MO3010075	BLACKWATER PWS	TOTAL TRIHALOMETHANE (TTHM)
COOPER	MO3024170	COOPER COUNTY CONS PWSD #1	TOTAL TRIHALOMETHANE (TTHM)
HOWARD	MO2010271	FAYETTE PWS	TOTAL TRIHALOMETHANE (TTHM)
HOWARD	MO2010566	NEW FRANKLIN PWS	TOTAL TRIHALOMETHANE (TTHM)
HOWARD	MO2024259	HOWARD COUNTY CONS PWSD 1	TOTAL TRIHALOMETHANE (TTHM)
JACKSON	MO1010921	UNITY VILLAGE	TOTAL TRIHALOMETHANE (TTHM)
LAFAYETTE	MO1010839	WAVERLY PWS	TOTAL TRIHALOMETHANE (TTHM)
LAFAYETTE	MO1024326	LAF JO SALINE CO CONS PWSD 2	TOTAL TRIHALOMETHANE (TTHM)
LINCOLN	MO6030021	CHAMPION FARMS SUBDIVISION	FLUORIDE
LINCOLN	MO6031217	TIMBER RIDGE ESTATES	FLUORIDE
PERRY	MO4024456	PERRY COUNTY PWSD 2	TOTAL TRIHALOMETHANE (TTHM)
PETTIS	MO3021332	PETTIS/JOHNSON/SALINE PWSD 1	TOTAL TRIHALOMETHANE (TTHM)
RAY	MO1024510	RAY COUNTY PWSD 1	TOTAL TRIHALOMETHANE (TTHM)
SALINE	MO2010029	ARROW ROCK PWS	TOTAL TRIHALOMETHANE (TTHM)
SALINE	MO2010502	MARSHALL PWS	TOTAL TRIHALOMETHANE (TTHM)
SALINE	MO2010520	MIAMI PWS	TOTAL TRIHALOMETHANE (TTHM)
SALINE	MO2010559	NELSON PWS	TOTAL TRIHALOMETHANE (TTHM)
SALINE	MO2010780	SWEET SPRINGS PWS	TOTAL TRIHALOMETHANE (TTHM)
SALINE	MO2024555	SALINE COUNTY PWSD 1	TOTAL TRIHALOMETHANE (TTHM)
SALINE	MO2024557	SALINE COUNTY PWSD 3	TOTAL TRIHALOMETHANE (TTHM)

Appendix A: Health Based Compliance

IV. Radiological MCL Violations

County	ID#	System Name	Chemical
LINCOLN	MO6010902	SILEX PWS	COMBINED RADIUM (-226 & -228)
LINCOLN	MO6030021	CHAMPION FARMS SUBDIVISION	GROSS ALPHA, EXCL. RADON & U
LINCOLN	MO6030021	CHAMPION FARMS SUBDIVISION	COMBINED RADIUM (-226 & -228)
MCDONALD	MO5010449	LANAGAN PWS	GROSS ALPHA, EXCL. RADON & U
MCDONALD	MO5010449	LANAGAN PWS	COMBINED RADIUM (-226 & -228)
OZARK	MO5024444	OZARK COUNTY PWSD 1	GROSS ALPHA, EXCL. RADON & U
OZARK	MO5024444	OZARK COUNTY PWSD 1	COMBINED RADIUM (-226 & -228)
ST FRANCOIS	MO4010456	LEADWOOD PWS	GROSS ALPHA, EXCL. RADON & U
ST FRANCOIS	MO4010456	LEADWOOD PWS	COMBINED RADIUM (-226 & -228)

Appendix A: Health Based Compliance

V. Surface Water Violations

The following systems violated the Surface Water Rule, Treatment Technique for Turbidity or other surface water requirements in the months or annual period indicated.

County	ID#	System Name	Period	Violation
GENTRY	MO1070639	MID FORK WTR CO	January – May	Combined Filter Effluent Turbidity
MONROE	MO2010538	MONROE CITY PWS	June, May	Combined Filter Effluent Turbidity

Appendix B

Chronic Major Monitoring Violations

The following systems had three or more major monitoring violations of the Revised Total Coliform Rule in 2018.

County	ID#	System Name	Month(s)
ANDREW	MO1041639	TRIPLE L TRAILER PARK	January-October
BATES	MO1010388	HUME PWS	March, June, September
BENTON	MO1212952	MISS SHONDAS DINER	March, May-June, August-October
BENTON	MO3281109	AMERICAN LEGION POST 217	August-October
BUTLER	MO4010993	NEELYVILLE PWS	May, July, August-December
CAMDEN	MO3190958	BAYMONT INN & SUITES	February, April-May, July-August
CAMDEN	MO5212937	SEVEN SPRINGS WINERY	April-May, July
CRAWFORD	MO3202538	CUBA LKS GOLF & CTRY CLUB	March, May, August
DALLAS	MO5033116	RIDGEVIEW ESTATES	February-May, July-December
DOUGLAS	MO5218158	FRATERNAL ORDER OF EAGLE 3748	February-March, May, August-September November-December
GREENE	MO5218149	LITTLE GUYS BASEBALL CLUB	February, August-September
JEFFERSON	MO6283249	FORE HONOR GOLF COURSE	August-September, December
LINCOLN	MO6031217	TIMBER RIDGE ESTATES	February-December
MCDONALD	MO5211235	LEGENDS RESTAURANT AND BAR	January-February, May
MILLER	MO3291408	BAGNELL EAGLE STOP	March-April, June
MILLER	MO5212698	CONSTRUCTION SITE BAR & GRILL	July-August, November
MILLER	MO5212967	OLD TOWN OSAGE	January-February, August, November
MORGAN	MO3208269	NORTHSHORE RESTAURANT & LOUNGE	July-September
MORGAN	MO5213161	TAP & GRILL LAKESIDE BREW HAUS	June, September-October, December
MORGAN	MO5283214	KREATIVE KIDDOS PRESCHOOL & DAYCARE	April, August-September
PERRY	MO4218555	BILLS PLACE	March-May, September, December
PETTIS	MO3048254	CRESTVIEW MHP	January-February, April-May, July-December
PETTIS	MO3190887	BUDGET INN	July, September, November
PHELPS	MO3048123	STATELY MANSION MOBILE VILLA	May, July-September
ST CHARLES	MO6061638	SUNSHINE HOME CARE	January-March, August-September, December
ST CHARLES	MO6213205	WILDSCHUETZ BROTHERS FARM	June-July, September, November
ST FRANCOIS	MO4250576	FARMINGTON AMVETS POST 113	April-May, August

ST FRANCOIS	MO4292751	ROYS #7	January, March, December
TANEY	MO5218299	TANEY COUNTY MEMORIAL POST 5168	July-August, September, November
TANEY	MO5292590	GATEWAY TO BRANSON EXPRESS STOP	April-May, August, October
TEXAS	MO4211081	GARDENS INN	January, March, June
WEBSTER	MO5213087	DOGWOOD TAVERN	January-June, September, December



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